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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,422	02/06/2004	Chul-min Kim	1793.1176	2065

21171 7590 09/25/2008

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EXAMINER	
CHEN, SHIN HON	
ART UNIT	PAPER NUMBER
2131	
MAIL DATE	DELIVERY MODE
09/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/772,422	KIM ET AL.	
	Examiner	Art Unit	
	SHIN-HON CHEN	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-18 have been examined.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 7-18 are not directed to a practical application of such judicial exception (e.g., because the claim does not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result).

Regarding claims 7-18, claims 7-18 disclose method of deciphering a variable width cipher data packet if a fixed width is a width of a cipher data packet to be processed in a deciphering process and is a multiple of a variable width of an arbitrary cipher data packet input by an arbitrary interface module. However, the method does not produce any tangible result if the above stated condition is not met. Therefore, claims 7-18 are rejected based on 35 U.S.C. 101 for failing to produce a useful, concrete, and tangible result in absence of the condition.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckman U.S. Pub. No. 20020051466 (hereinafter Bruckman) in view of Inada et al. U.S. Pub. No. 20020015422 (hereinafter Inada).

5. As per claim 1, Bruckman discloses an apparatus for receiving a variable width data packet (Bruckman: [0010]: packet transmission) comprising:

a variable width-fixed width data packet conversion unit which, if a fixed width is a width of a data packet to be processed in a receiving process and is a multiple of a variable width, which is a width of an arbitrary data packet input by an arbitrary interface module (Bruckman: [0027]: the re-assembler reassembles variable width data packet that are divided according to arbitrary size determined by transmission rate), the variable width-fixed width data packet conversion unit sequentially receives a number of variable width data packets each having an identical width and the number of which being the same as that of a combination value (Bruckman: [0036] lines 13: transmitting the packet sequentially), which is obtained by dividing the fixed width by the variable width, combines the number of sequentially input variable width data packets received to generate a fixed width data packet and outputs the fixed width data packet (Bruckman: [0018]-[0019]: the packets are equally divided according to transmission rate); and

a receiving unit which receives the fixed width data packet output from the variable width-fixed width data packet conversion unit to generate a fixed width data packet and outputs

the fixed width data packet (Bruckman: [0027] lines 17-19: the reassembled packets are conveyed to appropriate outputs for different services/receiving unit).

Bruckman discloses the packet can be processed by different services. Bruckman does not explicitly disclose deciphering the received enciphered packets. However, Inada discloses a transmitter transmits packets that are encrypted and divided and a receiver that reconstructs the divided packet and decrypts them (Inada: [0005]-[0007]: packet fragmentation and re-assembly processing). It would have been obvious to one having ordinary skill in the art to encrypt data packets during transport because both prior art discloses network communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Inada within the system of Bruckman because packet encryption is well known in the art to protect data from unauthorized access during communication.

6. As per claim 2, Bruckman as modified discloses the apparatus of claim 1. Bruckman as modified further discloses wherein the variable width-fixed width cipher data packet conversion unit divides the fixed width data packet output from the deciphering unit into the number of variable width data packets, the number of which being the same as that of the combination value, to generate the number of variable width data packets, and sequentially outputs the number of the generated variable width data packets (Bruckman: [0018] and [0036]).

7. As per claim 3, Bruckman as modified discloses the apparatus of claim 1. Bruckman as modified further discloses wherein if the variable width is a multiple of the fixed width, the

variable width-fixed width cipher data packet conversion unit receives the variable width cipher data packet, divides the received variable width cipher data packet into a number of fixed width cipher data packets, the number of which being the same as that of a separation value, that is obtained by dividing the variable width by the fixed width to generate the number of fixed width cipher data packets, and sequentially outputs the number of fixed width data packets generated, and the deciphering unit deciphers the number of fixed width cipher data packets output from the variable width-fixed width cipher data packet conversion unit to generate the number of fixed width data packets, the number of which being the same as that of the separation value, and outputs the number of fixed width data packets generated (Bruckman: [0019]: dividing the packet).

8. As per claim 4, Bruckman as modified discloses the apparatus of claim 3. Bruckman as modified further discloses wherein the variable width-fixed width cipher data packet conversion unit sequentially receives the number of fixed width data packets output from the deciphering unit, combines the number of fixed width data packet to generate a variable width data packet and outputs the variable width data packet (Bruckman: [0036] line 13).

9. As per claim 5, Bruckman as modified discloses the apparatus of claim 1. Bruckman as modified further discloses wherein the deciphering unit comprises: a fixed width cipher data packet storage unit which stores the fixed width cipher data packet generated in the variable width-fixed width cipher data packet conversion unit; a fixed width-deciphering width cipher data conversion unit which converts the fixed width cipher data packet stored in the fixed width

cipher data packet storage unit into deciphering width cipher data; a deciphering width cipher data deciphering unit which deciphers the deciphering width cipher data converted in the fixed width-deciphering width data conversion unit to generate deciphering width data; a deciphering width-fixed width data packet conversion unit which converts the deciphering width data generated in the deciphering width cipher data deciphering unit into the fixed width data packet; and a fixed width data packet storage unit which stores the fixed width data packet converted in the deciphering width-fixed width data packet conversion unit (Bruckman: [0018]-[0019] and [0027]: the system that supports the packet fragmentation and reconstruction).

10. As per claim 6, Bruckman as modified discloses the apparatus of claim 5. Bruckman as modified further discloses wherein if the deciphering width data is generated, the deciphering width cipher data deciphering unit generates and outputs a deciphering completion signal; the deciphering unit further comprises: a deciphering control unit and if the deciphering completion signal output from the deciphering width cipher data deciphering unit is received, generates and outputs a fixed width-deciphering width conversion signal, and if the fixed width-deciphering width conversion signal output from the deciphering control unit is received, the fixed width-deciphering width cipher data conversion unit converts the fixed width cipher data packet stored in the fixed width cipher data packet storage unit into the deciphering width cipher data (Bruckman: [0027]).

11. As per claim 7-18, claims 7-18 encompass the same scope as claims 1-6. Therefore, claims 7-18 are rejected based on the same reason set forth above in rejecting claims 1-6.

Response to Arguments

12. Applicant's arguments filed on 7/1/08 have been fully considered but they are not persuasive.

Regarding applicant's remarks, applicant argues that the prior art of record does not explicitly disclose a variable width-fixed width conversion. However, the examiner disagrees. The prior art of record (Bruckman) discloses packet re-assembler sequentially receives a number of variable size fragments (size is determined based on transmission rate) and combine them into a fixed size packet (the size of the packet does not change before and after the transmission). The applicant appears to have focused on "transmission channel conditions and effective transmission rate" rather than the process of re-assembler, which is performs the essential task of converting fragments (variable size data) into a packet (fixed size data). Furthermore, the combination value recited in the claim is simply a quotient from division of packets according to transmission rate and does not express inventive concept. Therefore, applicant's argument is traversed in light of above explanation.

In addition, the examiner has rejected claims 7-18 under 35 U.S.C 101 for failing to produce useful, concrete, and tangible result when the condition is not satisfied.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHIN-HON CHEN whose telephone number is (571)272-3789. The examiner can normally be reached on Monday through Friday 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shin-Hon Chen/
Examiner, Art Unit 2131

Shin-Hon Chen
Examiner
Art Unit 2131